

07-17557

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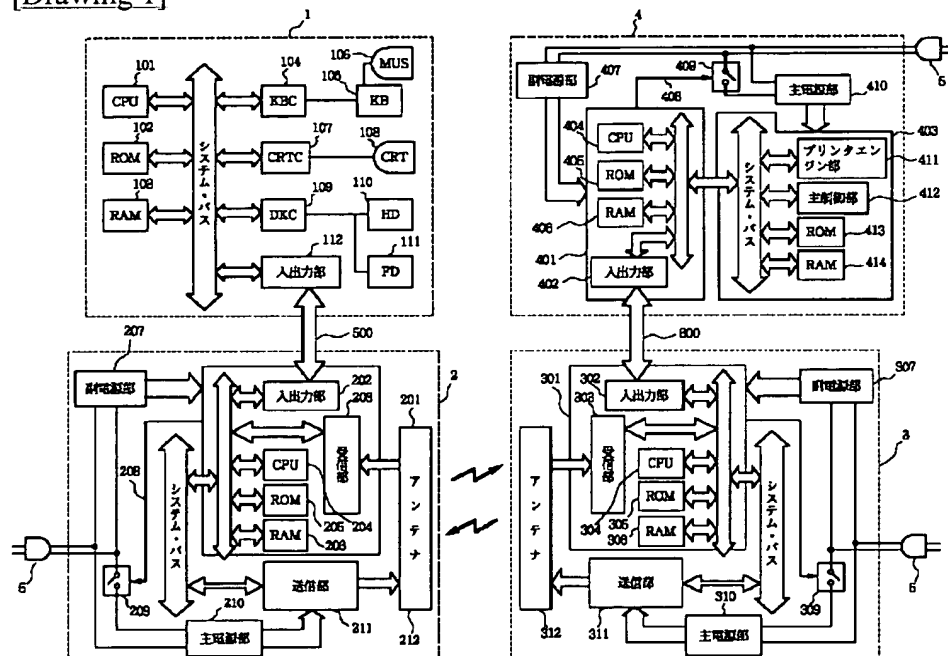
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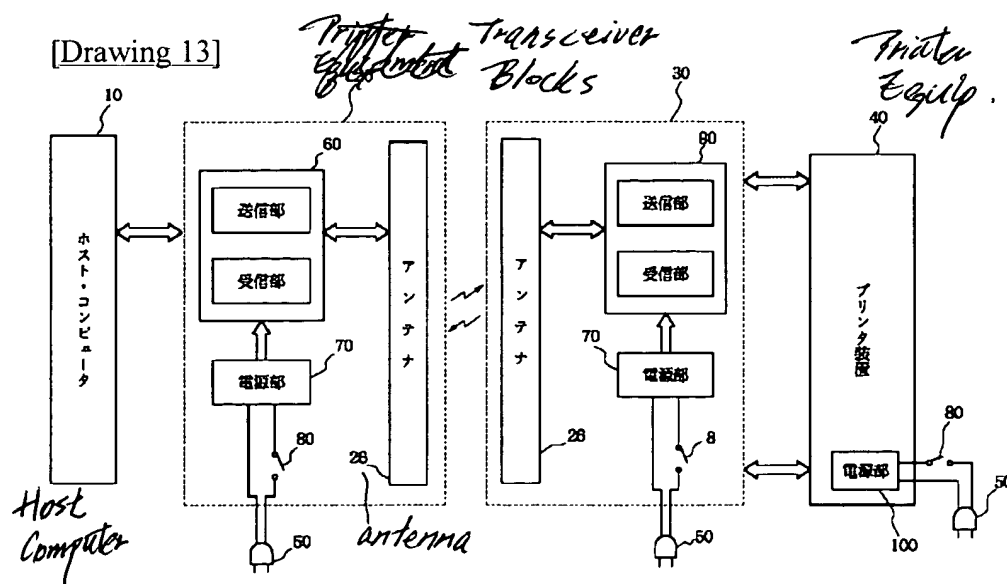
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DRAWINGS

[Drawing 1]

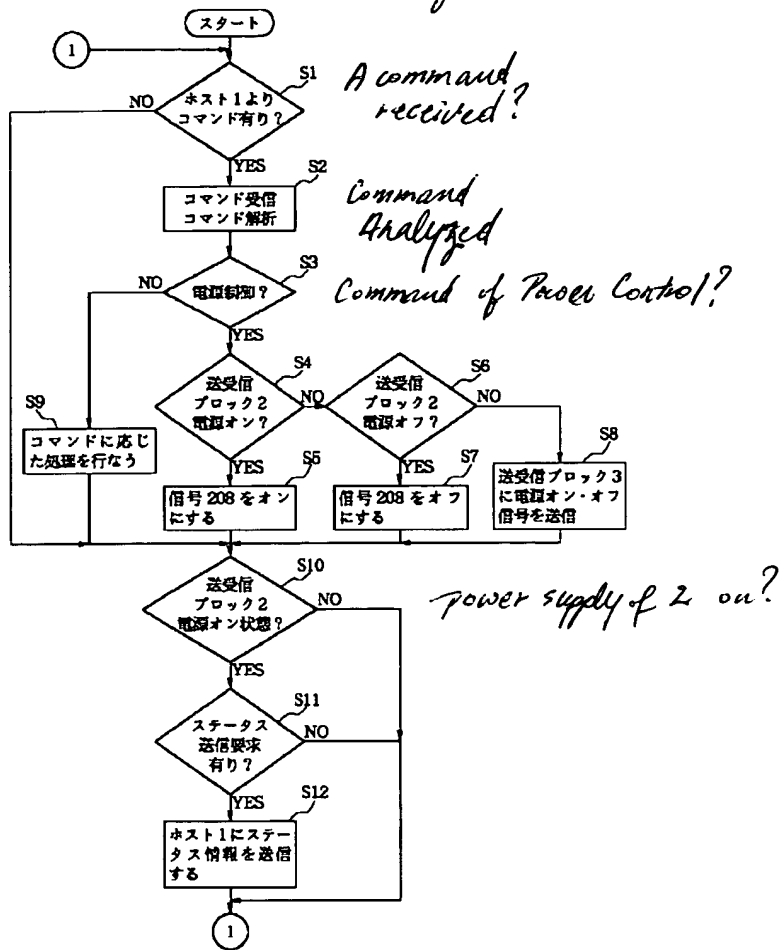


[Drawing 13]



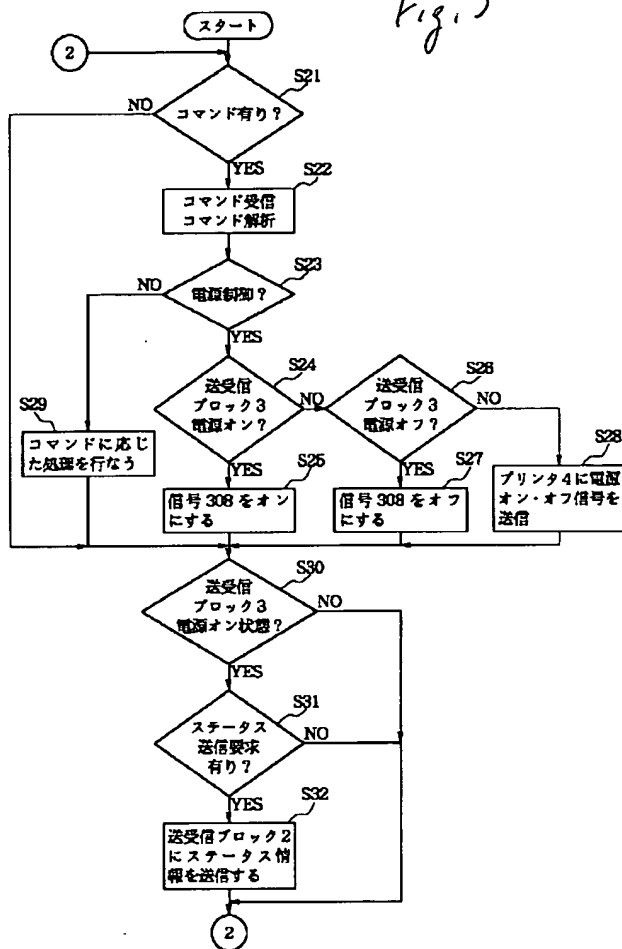
[Drawing 2]

Fig. 2

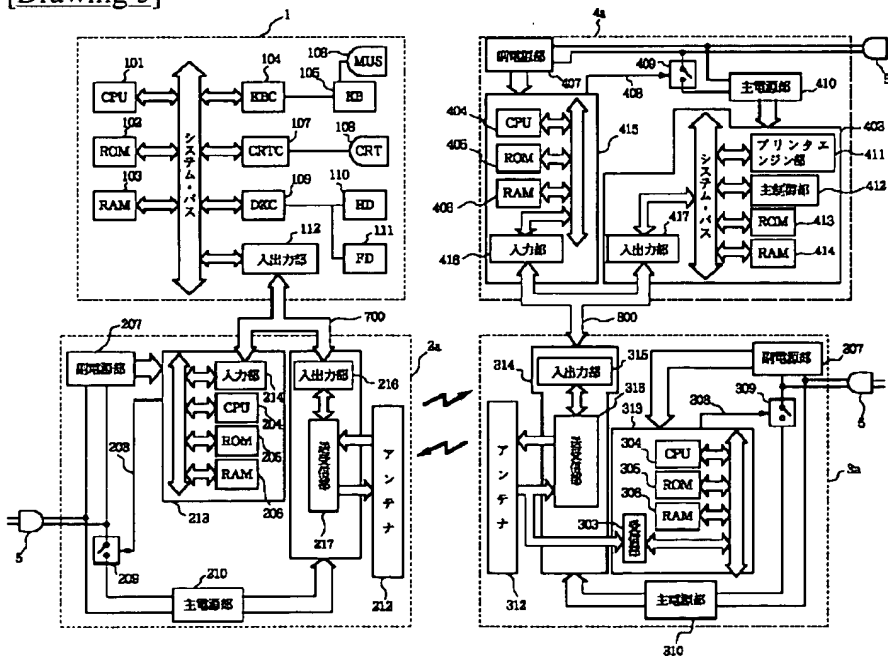
Flowchart
of transceiver block 2

[Drawing 3]

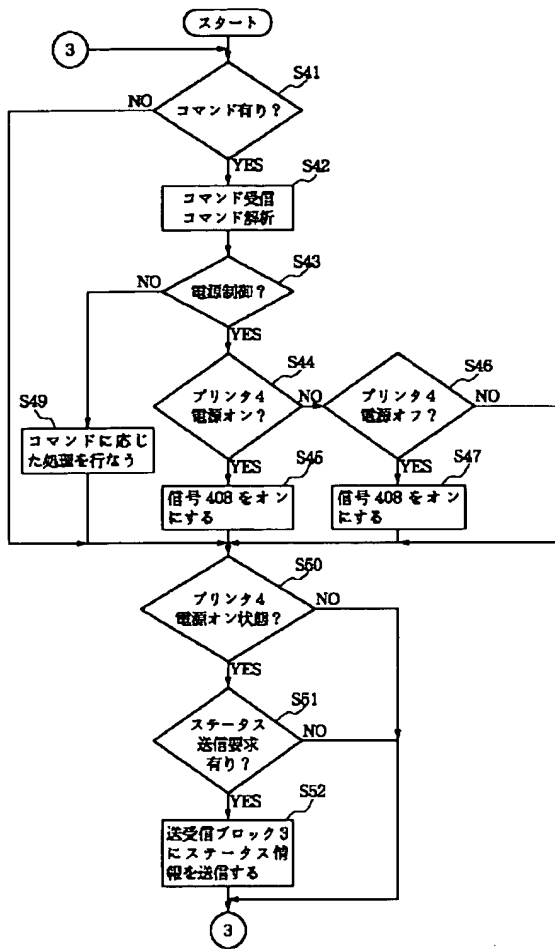
Fig. 3



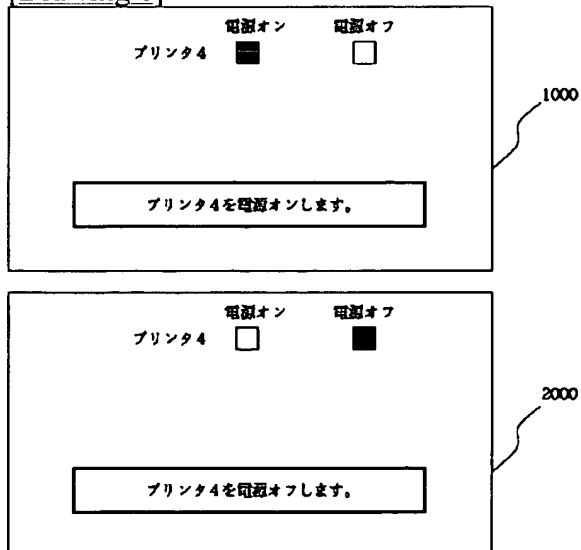
[Drawing 5]



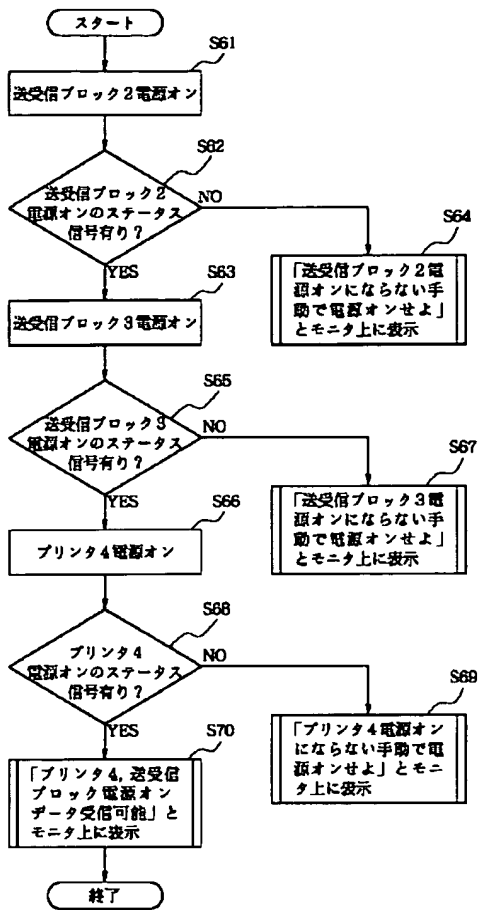
[Drawing 4]



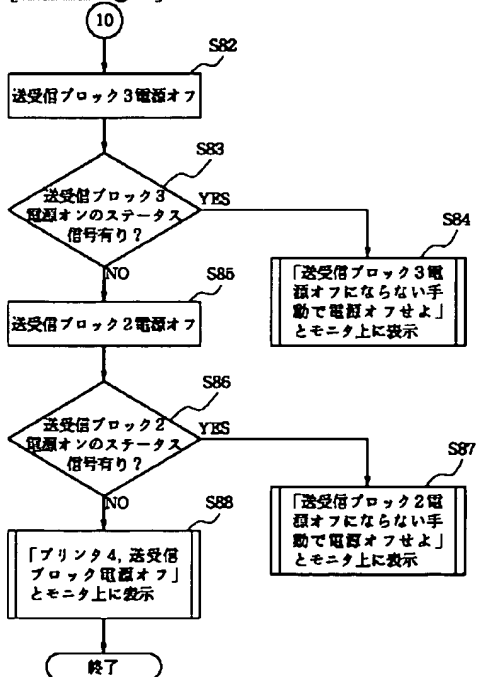
[Drawing 6]



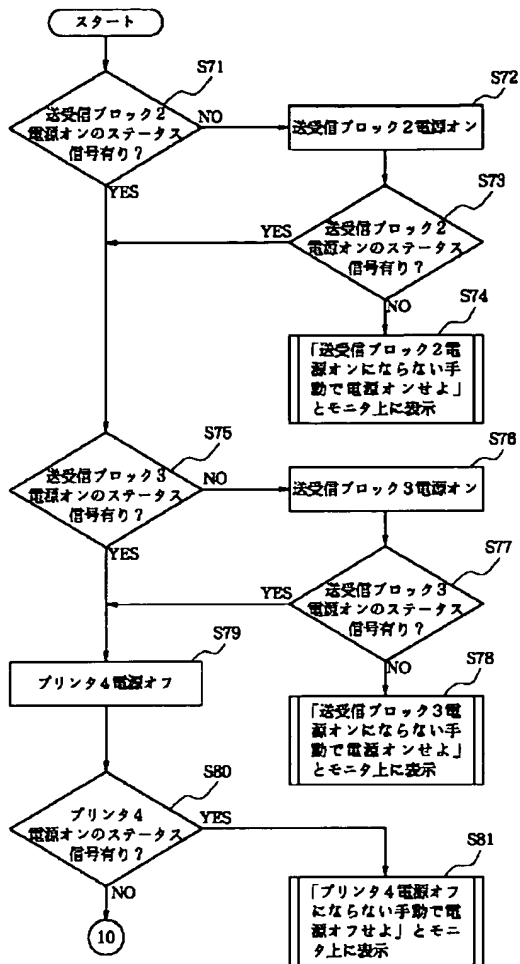
[Drawing 7]



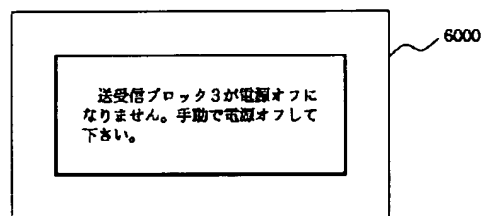
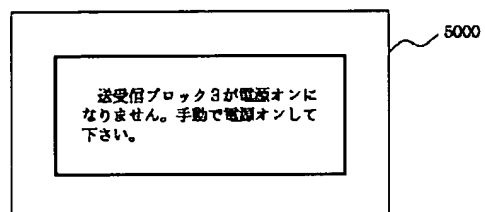
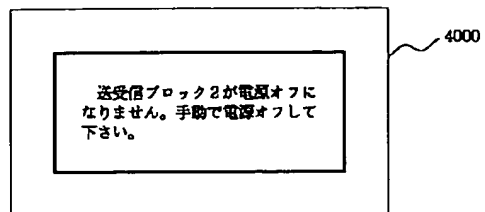
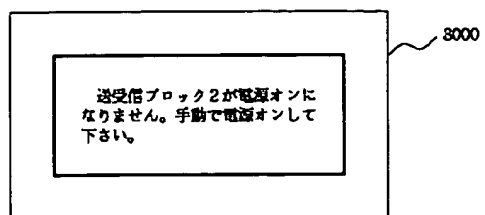
[Drawing 9]



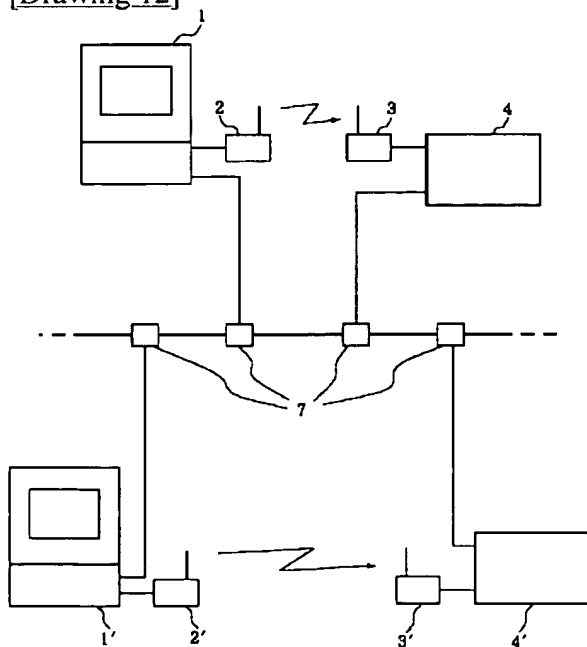
[Drawing 8]



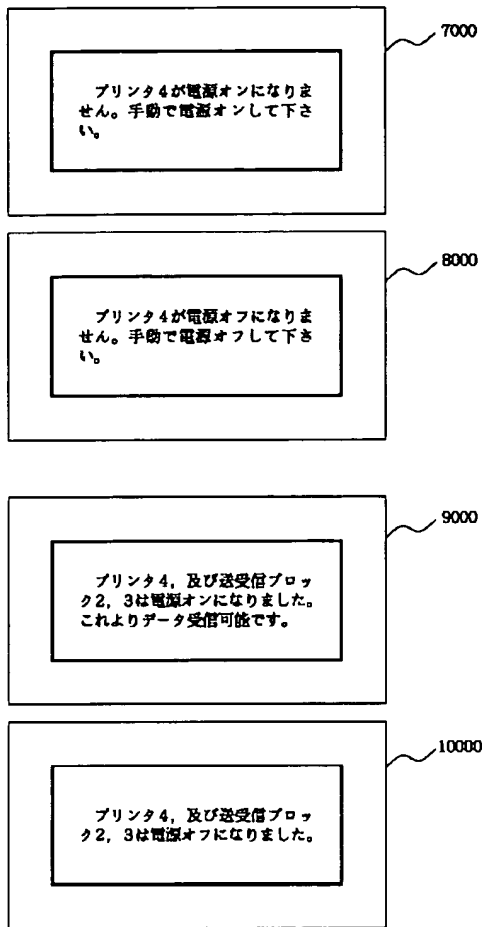
[Drawing 10]



[Drawing 12]



[Drawing 11]



[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] this invention relates to the power control method of other information processors connected to a host computer in sequence through a cable or radio.

[0002]

[Description of the Prior Art] The printing system which prints by transmitting data to printer equipment by radio from a host computer is known. The conventional printing structure of a system using such a radio communication equipment and it is shown in drawing 13. As for the host computer with which 10 transmits print data to printer equipment, and 20, in drawing 13, the transceiver block by the side of a host computer 10 and 30 are the transceiver blocks by the side of printer equipment 40. 40 is printer equipment and is printing the picture to record media-ed, such as the recording paper, based on the print data received from the host computer 10.

[0003] In the transceiver block 20, between host computers 10, 60 is the transceiver section which exchanges data or a command, status information, etc., it sends to an antenna 26, or it modulates the signal from a host computer 10, inputs the received modulating signal by the antenna 26, gets over, and is transmitted to the host computer 10. Moreover, 70 is a power supply section, direct-current (DC) voltage is supplied to the transceiver section 60, and alternating current (AC) voltage is supplied to this power supply section 70 through the AC plug socket 50 and the power switch 80. Such composition is the same also in the transceiver block 30 by the side of printer equipment. Moreover, also in printer equipment 40, there is a power supply section 100 for supplying DC voltage to an internal circuit, and AC voltage is supplied through the AC plug socket 50 and the power switch 80 at the power supply section 100.

[0004]

[Problem(s) to be Solved by the Invention] In such an above-mentioned conventional example, the power supply section and the power switch are formed in the Radio Communications Department 20 and 30 by the side of a host computer 10 and printer equipment 40, and each of printer equipment 40. For this reason, when starting a printing system, the operator needed to carry out to the place where each is set up, and needed to make each electric power switch turn on. When a host computer 10 and printer equipment 40 were separated, the starting operation of such operation was very troublesome, and it had the problem of being troublesome.

[0005] this invention is made in view of the above-mentioned conventional example, and the power control of the main information processors, such as a host computer, and two or more of other information processors currently installed in the place distant through a cable or radio in sequence Without a user being conscious of other information processors which intervene between the information processors and the main information processors which are considered as the request which performs power control by carrying out package management with the main information processor It aims at offering the power control method which can carry out remote control of the power supply of the information processor automatically considered as a request on the main information processor.

[0006]

[Means for Solving the Problem] In order to attain the above-mentioned purpose, the power control method of this invention is equipped with the following processes. Namely, the inside of two or more of other information processors connected to the main information processor by the cable or radio in sequence, The recognition process which is the power control method in the main information processor which controls the power supply of the information processor considered as a request, and receives and recognizes the power control state of other information processors connected with the aforementioned main information processor by the cable or radio in sequence, Based on the power control directions information on the aforementioned information processor considered as the aforementioned request with the recognition result recognized at the aforementioned recognition process, it has the power control process which controls the power supply of the information processor considered as a request.

[0007]

[Function] In the above composition, remote control of the power supply of the information processor considered as a request on the main information processor is carried out among the main information processor and two or more information processors connected in sequence, without being conscious of other information processors which intervene between the main information processor and the information processor considered as a request.

[0008]

[Example]

(The 1st example) With reference to an accompanying drawing, the suitable example of this invention is explained in detail hereafter. Drawing 1 is the block diagram showing the system configuration of the 1st example of this invention.

[0009] In drawing 1, 1 is the main information processors, such as a host computer, is equipped with CPU101 which performs the document processing system in which the figure, the image, the character, the table (a spreadsheet etc. is included), etc. were intermingled based on the program memorized by ROM102, and controls each device connected to a system bus in the gross. Moreover, to ROM102, the control program of CPU101 shown with the flow chart shown in drawing 7, drawing 8, drawing 9, etc. is memorized.

[0010] 103 is RAM and functions as the main memory of CPU101, and a work area. 104 is a keyboard controller (KBC) and controls the key input from a keyboard 105 and mouse 106 grade. 107 is a CRT controller (CRTC) and controls the display of CRT display (CRT) 108. 109 -- a disk controller (DKC) -- it is -- a boot program -- various -- application -- font data -- a user file -- edit -- a file -- etc. -- memorizing -- a hard disk -- (-- HD --) -- 110 -- a floppy disk -- (-- FD --) -- 111 -- access -- controlling . 112 is the I/O section and is connected to other information processors through the bidirectional interface 500.

[0011] Or information processors, such as a transceiver block by the side of a host computer 1, and 3 are information processors, such as a transceiver block by the side of printer equipment 4. In the transceiver block 2, it is the command detection section which 201 interprets the command and data from a host computer 1, and returns the status information of the transceiver block 2 to a host computer 1, and the receive section which the I/O section with which 202 exchanges data through a host computer 1 and the bidirectional interface 500, and 203 restore to the modulating signal from an antenna 212, and is changed into a digital signal, and 204 are CPUs which manage control of the transceiver block 2. The control program of CPU204 shown with the flow chart of drawing 2 etc. is stored in ROM205, and 206 is buffer memory which stores temporarily the data inputted into the transceiver block 2. It is the transmitting section which 207 transforms into DC voltage AC voltage inputted through the plug socket 5, it is the subpower supply section always supplied to the command detection section 201, and 211 modulates the digital data from the command detection section 201, and outputs a signal to an antenna 212. The main-power-supply section in which 210 supplies DC voltage to the transmitting section 211, and 209 are electric power switches which turn on and off AC voltage supplied to the main-power-supply section 210, and the turning on and off is controlled by the signal 208 outputted from the command detection section 201 mentioned later.

[0012] In the transceiver block 3, 301 interprets the command and data from a host computer which have been sent through the transceiver block 2. Send a command and image data to the information processor of printer 4 grade, or It is the command detection section which receives the status information from a printer 4. The receive section which the I/O section with which 302 exchanges data through a printer 4 and the bidirectional interface 600, and 303 restore to the modulating signal from an antenna 312, and is changed into a digital signal, and 304 are CPUs which manage control of the transceiver block 3. The control program of CPU304 shown with the flow chart of drawing 3 etc. is stored in ROM305, and 306 is buffer memory which stores temporarily the data inputted into the transceiver block 3. It is the transmitting section which 307 transforms into DC voltage AC voltage inputted through the plug socket 5, it is the subpower supply section always supplied to the command detection section 301, and 311 modulates the digital data from the command detection section 301, and outputs a signal to an antenna 312. The main-power-supply section in which 310 supplies DC voltage to the transmitting section 311, and 309 are electric power switches which turn on and off AC voltage supplied to the main-power-supply section 310, and the turning on and off is controlled by the signal 308 outputted from the command detection section 301 mentioned later.

[0013] In printer equipment 4, 401 is the command detection section which performs the exchange of a host computer 1, a command, image data, and the status through the transceiver blocks 2 and 3, and the I/O section with which 402 exchanges data through the transceiver block 3 and the bidirectional interface 600, and 404 are CPUs which manage control of the command detection section 401. The control program of CPU404 shown with the flow chart of drawing 4 etc. is stored in ROM405, and 406 is buffer memory which stores temporarily the data inputted into printer equipment 4. It is the subpower supply section which 407 transforms into DC voltage AC voltage inputted through the plug socket 5, and is always supplied to the command detection section 401, and 403 is the printer principal part. The main-power-supply section in which 410 supplies DC voltage to the printer principal part 403, and 409 are electric power switches which turn on / turn off AC voltage supplied to the main-power-supply section 410, and the turning on and off is controlled by the signal 408 outputted from the command detection section 401 mentioned later. Moreover, in the printer principal part 403, the printer engine section in which 411 manages the engine of a printer and its control, and 412 are controlling the printer equipment 4 whole by the main-control section which consists of a CPU etc. ROM in which 413 stores the control program of the printer equipment 4 whole, and 414 are RAM which memorizes print data etc. per page or saves various data temporarily.

[0014] "Power supply ON / off-command" sent through the transceiver blocks 2 and 3 from a host computer 1 is received in the command detection section 401 of printer equipment 4. According to the content of a power supply on--off command, a signal 408 is controlled by this command detection section 401, and turning on and off of an electric power switch 409 is controlled by it by this signal 408. On-off control of the main power supply 410 of printer equipment 4 is carried out by this electric power switch 409. Therefore, power consumption at the time of standby of printer equipment 4 can be made low by control of the power consumption of the printer 4 whole (when not carrying out printing operation).

[0015] Drawing 2 is a flow chart which shows operation of the command detection section 201 of the transceiver block 2 in drawing 1, and explains operation of the command detection section 201 with reference to this flow chart below.

[0016] In addition, ROM205 in the command detection section 201 memorizes, and CPU204 in the command detection section 201 controls the following operation based on this program so that the program shown in the flow chart of drawing 2 is shown in drawing 1.

[0017] First, if it judges whether CPU received the command from a host computer 1 in RAM206 at Step S1 and a command is sent, it will progress to Step S2, and the command will be received and analyzed. When a command is not sent, it progresses to Step S10 from Step S1. the command for the ~~command~~ controlling a power supply by Step S3, as for CPU204 -- or it judges whether they are other commands, and when it is not the command of power control, it progresses to step S9 and control according to the command is performed

[0018] On the other hand, in Step S3, it progresses to step S4 at the time of the command of power control, and it judges whether it is the power supply on-command of the transceiver block 2. If it is the command of power supply ON, it will progress to Step S5, a signal 208 and a switch 209 will be turned ON, the main-power-supply section 210 will be in an ON state, power will be supplied to the data transmitting section 21, and the data transmission to a host computer 1 and the transceiver block 3 will be attained. Next, when it is not a power supply on-command, it progresses to Step S6 and judges whether it is the power supply off-command of the transceiver block 2. If it is a power supply off-command, it will progress to Step S7, a signal 208 and a switch 209 will be turned OFF, and the main-power-supply section 210 will be in an OFF state.

[0019] When it is not the power supply off-command of the transceiver block 2 in Step S6 on the other hand (the received command) When it is judged that it is not the power supply off-command of the transceiver block 2, Namely, when the transceiver block 3 or power supply ON / off-command of a printer 4 is received from a host computer.(a receiving command) When it is judged that they are the transceiver block 3 or power supply ON / off-command of a printer 4, it progresses to Step S8 and the above 3 or power supply ON / off-command of 4 is transmitted to the transceiver block 3.

[0020] After processing of Steps S5, S7, and S8 or S9 is completed, it progresses to Step S10 and CPU judges whether it is the state of power supply ON of the transceiver block 2. Although it judges whether in power supply ON it progresses to Step S11 and CPU has the transceiver demand of the status from a host computer 1, in power supply OFF, the transceiver block 2 returns to Step S1. In Step S11, when there is a Request to Send of the status, it progresses to Step S12 and the transceiver blocks 2 and 3 or the status data of a printer 4 is transmitted to a host computer 1. When there is no Request to Send of the status, it returns to Step S1 and the above-mentioned processing is repeated.

[0021] Therefore, according to the command input from a host computer 1, a power supply is turned on or OFF controlled, and the transceiver block 2 turns on or controls [OFF] the power supply of the transceiver block 3 and a printer 4 further according to the command input from a host computer 1. In addition, since the current supply to the command detection section in the transceiver block 2, the transceiver block 3, and a printer 4 is maintained, the power control demand from a host computer 1 is attained.

[0022] Drawing 3 is a flow chart which shows operation of the command detection section 301 of the transceiver block 3 in drawing 1, and explains operation of the command detection section 301 with reference to this flow chart. In addition, the program shown in this flow chart is memorized by ROM305, and CPU304 controls the following operation based on this program.

[0023] At Step S21, if it judges whether CPU304 received the command from the transceiver block 2 in RAM306 and a command is sent, although it will progress to Steps S22 and S23, when a command is not sent, it progresses to Step S30.

[0024] At Step S23, it judges whether it is a power control command, and when it is not a power control command, it progresses to Step S29 and progresses to Step S24 at the time of a power control command.

[0025] Next, at Step S24, it judges whether it is the power supply on-command of the transceiver block 3. If it is a power supply on-command, it will progress to Step S25, a signal 308 and a switch 309 will be turned ON, the main-power-supply section 310 will be in an ON state, power will be supplied to the data transmitting section 311, and transmission of the data to the transceiver block 2 will be attained. Moreover, when it is not a power supply on-command, it progresses to Step S26 and judges whether it is the power supply off-command of the transceiver block 3. If it is the command of power supply OFF, it will progress to Step S27, a signal 308 and a switch 309 will be turned OFF, and the main-power-supply section 310 will be in an OFF state.

[0026] When it is not the power supply off-command of the transceiver block 3 in Step S26 on the other hand (the received command) When it is judged that it is not the power supply off-command of the transceiver block 3, That is, when power supply ON / off-command of a printer 4 is received, it progresses to Step S28 (when the received command is judged to be power supply ON / off-command of a printer 4), and power supply ON / off-command of a printer 4 is transmitted to a printer 4.

[0027] Although it progresses to Step S30, the transceiver block 3 judges whether it is a power supply ON state and it judges whether there is any Request to Send of the status from the transceiver block 2 in power supply ON after processing of Steps S25, S27, S28, and S29 is completed, in power supply OFF, it returns to Step S21. When there is a Request to Send of the status in Step S31, it progresses to Step S32 and the transceiver block 3 with the Request to Send or the status data of a printer 4 is transmitted to the transceiver block 2. When there is no Request to Send of the status, it returns to Step S21 and the above-mentioned processing is repeated.

[0028] Therefore, according to the command input from the transceiver block 2, a power supply is turned on or OFF controlled, and the transceiver block 3 turns on or controls [OFF] the power supply of a printer 4 further according to the command input from the transceiver block 2. In addition, since the current supply to the command detection section in the transceiver block 3 and a printer 4 is maintained, the power control demand inputted through the transceiver block 2 is attained.

[0029] Drawing 4 is a flow chart which shows operation of the command detection section 401 of the printer 4 in drawing 1, and explains operation of the command detection section 401 with reference to this flow chart. In addition, the program shown in this flow chart is memorized by ROM405, and CPU404 controls the following operation based on this program.

[0030] At Step S41, if it judges whether CPU404 received the command from the transceiver block 3 to RAM406 and a command is sent, although it will progress to Steps S42 and S43, when a command is not sent, it progresses to Step S50.

[0031] At Step S43, it judges whether it is a power control command, and when it is not a power control command, it progresses to S49 and progresses to Step S44 at the time of a power control command.

[0032] At Step S44, it judges whether it is the power supply on-command of a printer 4. If it is a power supply on-command, it will progress to Step S45, a signal 408 and a switch 409 will be turned ON, the main-power-supply section 410 will be in an ON state, power will be supplied to block 403 and printing of a printer 4 will be attained. Moreover, when it is not a power supply on-command, it progresses to Step S46 and judges whether it is the power supply off-command of a printer 4. If it is the command of power supply OFF, it will progress to Step S47, a signal 408 and a switch 409 will be turned OFF, and the main-power-supply section 410 will be in an OFF state. Furthermore, in Step S46, when it is not the power supply off-command of a printer 4, it progresses to Step S50.

[0033] Although it progresses to Step S50, a printer 4 judges whether it is a power supply ON state and it judges whether there is any Request to Send of the status from the transceiver block 3 in power supply ON after Steps S45 and S47 or processing of S49 is completed, in power supply OFF, it returns to Step S41. In Step S51, when there is a Request to Send of the status, it progresses to Step S52 and the status data of a printer 4 are transmitted to the transceiver block 3. When there is no Request to Send of the status, it returns to Step S41 and the above-mentioned processing is repeated.

[0034] Therefore, a printer 4 is turned on or OFF controlled in a power supply according to the command input from the transceiver block 3.

[0035] In addition, since the current supply to the command detection section 401 in a printer 4 is maintained, the power control demand inputted through the transceiver block 3 is attained.

[0036] (The 2nd example) Drawing 5 is the block diagram showing the 2nd example of this invention, 2a is information processors, such as a transceiver block by the side of the main information processor of host computer 1 grade, and 3a is information processors, such as a transceiver block by the side of information processors, such as printer equipment 4a. In transceiver block 2a, 213 is the command detection section which interprets the command from a host computer 1, and the input section from which 214 receives the data from a host computer 1, and 204 are CPUs which manage control of transceiver block 2a. The control program of CPU204 shown with the flow chart of drawing 2 etc. is stored in ROM205, and 206 is buffer memory which stores temporarily the data inputted into transceiver block 2a. 207 is a subpower supply section which transforms into DC voltage AC voltage inputted from 5, and is always supplied to the command detection section 213. 216 is the I/O section which performs an exchange of a host computer and data, and 217 is the transceiver section which modulates the data from the I/O section 216, is outputted to an antenna 212, or restores to the data from an antenna 212 and

is outputted to the I/O section 216. The main-power-supply section which supplies DC voltage to 215 in which 210 contained the I/O section and the transceiver section, and 209 are electric power switches which turn on and off AC voltage supplied to the main-power-supply section 210, and the turning on and off is controlled by 208 outputted from the command detection section 213 mentioned later.

[0037] In transceiver block 3a, 313 is the command detection section which interprets the command from the host computer sent through transceiver block 2a, and the receive section which 303 restores to the modulating signal from an antenna 312, and is changed into a digital signal, and 304 are CPUs which manage control of transceiver block 3a. The control program of CPU304 shown with the flow chart of drawing 3 etc. is stored in ROM305, and 306 is buffer memory which stores temporarily the data inputted into transceiver block 3a. It is the subpower supply section which 307 transforms into DC voltage AC voltage inputted from 5, and is always supplied to the command detection section 313, and they are the I/O section with which 315 exchanges printer 4a and data, and the transceiver section which 316 restores to the signal from an antenna 312, and is outputted to the I/O section 315, or modulates the digital signal from the I/O section 315, and is outputted to an antenna 312. The main-power-supply section which supplies DC voltage to the block 314 with which 310 doubled the I/O section 315 and the transceiver section 316, and 309 are electric power switches which turn on and off AC voltage supplied to the main-power-supply section 310, and the turning on and off is controlled by the signal 308 outputted from the command detection section 313 mentioned later.

[0038] In printer equipment 4a, 415 is the command detection section which receives the command from a host computer 1 through the transceiver blocks 2a and 3a, and the input section into which 416 inputs the data from transceiver block 3a, and 404 are CPUs which manage control of the command detection section 415. The control program of CPU404 shown with the flow chart of drawing 4 etc. is stored in ROM405, and 406 is buffer memory which stores temporarily the data inputted into printer equipment 4a. 407 is a subpower supply section which transforms into DC voltage AC voltage inputted from 5, and is always supplied to the command detection section 415, and 403 is the printer principal part. The main-power-supply section in which 410 supplies DC voltage to the printer principal part 403, and 409 are electric power switches which turn on and off AC voltage impressed to the main-power-supply section 410, and the turning on and off is controlled by the signal 408 outputted from the command detection section 415 mentioned later. Moreover, in the printer principal part 403, 417 inputs the data from transceiver block 3a, or the I/O section which outputs the status signal of printer 4a to transceiver block 3a, the printer engine section in which 411 manages the engine of a printer and its control, and 412 are controlling the whole printer equipment 4a by the main-control section which consists of a CPU etc. ROM in which 413 stores the control program of the printer equipment 4 whole, and 414 are RAM which memorizes print data per page or saves various data temporarily.

[0039] Drawing 2 is a flow chart which shows operation of the command detection section 213 of transceiver block 2a in drawing 5, and explains operation of the command detection section 213 with reference to this flow chart below.

[0040] In addition, ROM205 in the command detection section 213 memorizes, and CPU204 in the command detection section 213 controls the following operation based on this program so that the program shown in the flow chart of drawing 2 is shown in drawing 5.

[0041] First, if it judges whether CPU204 received the command from a host computer 1 in RAM206 at Step S1 and a command is sent, it will progress to Step S2, and the command will be received and analyzed. When a command is not sent, it progresses to Step S10 from Step S1. the command for the command controlling a power supply by Step S3, as for CPU -- or it judges whether they are other commands, and when it is not the command of power control, it progresses to step S9 and control according to the command is performed

[0042] On the other hand, in Step S3, it progresses to step S4 at the time of the command of power control, and it judges whether it is the power supply on-command of transceiver block 2a. If it is the command of power supply ON, it will progress to Step S5, a signal 208 and a switch 209 will be turned ON, the main-power-supply section 210 will be in an ON state, power will be supplied to block 215 and a host computer 1, transceiver block 3a, and the data transmission and reception to a host computer 1

will be attained. Next, when it is not a power supply on-command, it progresses to Step S6 and judges whether it is the power supply off-command of transceiver block 2a. If it is a power supply off-command, it will progress to Step S7, a signal 208 and a switch 209 will be turned OFF, and the main-power-supply section 210 will be in an OFF state.

[0043] When it is not the power supply off-command of transceiver block 2a in Step S6 on the other hand (the received command) When it is judged that it is not the power supply off-command of transceiver block 2a, Namely, when power supply ON / off-command of transceiver block 3a or printer 4a is received from a host computer (a receiving command) When it is judged that it is power supply ON / off-command of transceiver block 3a or printer 4a, it progresses to Step S8 and power supply ON / off-command of the above-mentioned 3a or 4a is transmitted to transceiver block 3a.

[0044] After processing of Steps S5, S7, and S8 or S9 is completed, it progresses to Step S10 and CPU judges whether it is the state of power supply ON of transceiver block 2a. Although it judges whether in power supply ON it progresses to Step S11 and CPU has the transceiver demand of the status from a host computer 1, in power supply OFF, transceiver block 2a returns to Step S1. In Step S11, when there is a Request to Send of the status, it progresses to Step S12 and the status data of the transceiver blocks 2a and 3a or printer 4a are transmitted to a host computer 1. When there is no Request to Send of the status, it returns to Step S1 and the above-mentioned processing is repeated.

[0045] Therefore, according to the command input from a host computer 1, a power supply is turned on or OFF controlled, and transceiver block 2a turns on or controls [OFF] the power supply of transceiver block 3a and printer 4a further according to the command input from a host computer 1. In addition, since the current supply to the command detection section in transceiver block 2a, transceiver block 3a, and printer 4a is maintained, the power control demand from a host computer 1 is attained.

[0046] Drawing 3 is a flow chart which shows operation of the command detection section 313 of transceiver block 3a in drawing 5, and explains operation of the command detection section 313 with reference to this flow chart. In addition, the program shown in this flow chart is memorized by ROM305, and CPU304 controls the following operation based on this program.

[0047] At Step S21, if it judges whether CPU304 received the command from transceiver block 2a in RAM306 and a command is sent, although it will progress to Steps S22 and S23, when a command is not sent, it progresses to Step S30.

[0048] At Step S23, it judges whether it is a power control command, and when it is not a power control command, it progresses to Step S29 and progresses to Step S24 at the time of a power control command.

[0049] Next, at Step S24, it judges whether it is the power supply on-command of transceiver block 3a. If it is a power supply on-command, it will progress to Step S25, a signal 308 and a switch 309 will be turned ON, the main-power-supply section 310 will be in an ON state, power will be supplied to the data transceiver section 314, and transmission and reception of the data to transceiver block 2a and printer 4a will be attained. Moreover, when it is not a power supply on-command, it progresses to Step S26 and judges whether it is the power supply off-command of transceiver block 3a. If it is the command of power supply OFF, it will progress to Step S27, a signal 308 and a switch 309 will be turned OFF, and the main-power-supply block 310 will be in an OFF state.

[0050] When it is not the power supply off-command of transceiver block 3a in Step S26 on the other hand (the received command) When it is judged that it is not the power supply off-command of transceiver block 3a, That is, when the power supply ON 2 off-command of printer 4a is received, it progresses to Step S28 (when the received command is judged to be printer 4a power supply ON / off-command), and power supply ON / off-command of printer 4a is transmitted to printer 4a.

[0051] Although it progresses to Step S30, transceiver block 3a judges whether it is a power supply ON state and it judges whether there is any Request to Send of the status from transceiver block 2a in power supply ON after Steps S25, S27, and S28 or processing of S29 is completed, in power supply OFF, it returns to Step S21. In Step S31, when there is a Request to Send of the status, it progresses to Step S32 and the status data of transceiver block 3a with the Request to Send or printer 4a are transmitted to transceiver block 2a. When there is no Request to Send of the status, it returns to Step S21 and the

above-mentioned processing is repeated.

[0052] Therefore, according to the command input from transceiver block 2a, a power supply is turned on or OFF controlled, and transceiver block 3a turns on or controls [OFF] the power supply of printer 4a further according to the command input from transceiver block 2a. In addition, since the current supply to the command detection section in transceiver block 3a and printer 4a is maintained, the power control demand inputted through transceiver block 2a is attained.

[0053] Drawing 4 is a flow chart which shows operation of the command detection section 415 of printer 4a in drawing 5 , and explains operation of the command detection section 415 with reference to this flow chart. In addition, the program shown in this flow chart is memorized by ROM405, and CPU404 controls the following operation based on this program.

[0054] At Step S41, if it judges whether CPU404 received the command from transceiver block 3a to RAM406 and a command is sent, although it will progress to Steps S42 and S43, when a command is not sent, it progresses to Step S50.

[0055] At Step S43, it judges whether it is a power control command, and when it is not a power control command, it progresses to S49 and progresses to Step S44 at the time of a power control command.

[0056] At Step S44, it judges whether it is the power supply on-command of printer 4a. If it is a power supply on-command, it will progress to Step S45, a signal 408 and a switch 409 will be turned ON, the main-power-supply section 410 will be in an ON state, power will be supplied to block 403 and transmission and reception of printer 4a will be attained. Moreover, when it is not a power supply on-command, it progresses to Step S46 and judges whether it is the power supply off-command of printer 4a. If it is the command of power supply OFF, it will progress to Step S47, a signal 408 and a switch 409 will be turned OFF, and the main-power-supply section 410 will be in an OFF state. Furthermore, in Step S46, when it is not the power supply off-command of printer 4a, it progresses to Step S50.

[0057] Although it progresses to Step S50, a printer 4 judges whether it is a power supply ON state and it judges whether there is any Request to Send of the status from transceiver block 3a in power supply ON after Steps S45 and S47 or processing of S49 is completed, in power supply OFF, it returns to Step S41. In Step S51, when there is a Request to Send of the status, it progresses to Step S52 and the status data of printer 4a are transmitted to transceiver block 3a. When there is no Request to Send of the status, it returns to Step S41 and the above-mentioned processing is repeated.

[0058] Therefore, printer 4a is turned on or OFF controlled in a power supply according to the command input from transceiver block 3a.

[0059] In addition, since the current supply to the command detection section 415 in printer 4a is maintained, the power control demand inputted through transceiver block 3a is attained.

[0060] (The 3rd example) Next, the example which applied this invention to the radio network system as shown in drawing 12 is explained.

[0061] Drawing 6 is the screen projected on CRT of a host computer, and when it turns on the power supply of a printer 4, when it turns off a power supply, as are shown in 1000, and a printer 4 is shown in 2000, the display control of it is carried out, respectively.

[0062] Drawing 7 is a flow chart which shows this example, and shows operation in case a host computer 1 starts the power supply of the information processor of printer 4 grade through the information processor of the radio transmitter-receiver 2 and 3 grades in the system shown in drawing 11 . All the procedure of drawing 7 is controlled by CPU101 in the host computer 1 shown in drawing 1 or drawing 5 here, and the program is memorized by ROM102 in a host computer 1, or HD110 and FD111. With reference to drawing 7 , operation is explained below.

[0063] The command for starting the power supply of the transceiver block 2 from a host computer 1 using a mouse 106 or a keyboard 105 at Step S61 first is transmitted. Subsequently, although it progresses to Step S63 when it judges whether the power supply of the transceiver block 2 started and starts at Step S62, when the status signal of power supply ON does not come on the contrary, it is judged as power supply OFF, and it progresses to Step S64, and the "transceiver block 2 is not turned on [power supply] from the transceiver block 2. Please carry out power supply ON manually. As it is indicated in 3000 of drawing 10 as ", it displays on CRT of a host computer.

[0064] At Step S63, the command for starting the power supply of the transceiver block 3 through the transceiver block 2 using a mouse 106 or a keyboard 105 from a host computer 1 is transmitted, and it progresses to Step S65. Although it judges whether the power supply of the transceiver block 3 started, and it progresses to Step S66 at Step S65 when it starts, when the status signal of power supply ON does not come on the contrary from the transceiver block 3, it is judged as power supply OFF, and it progresses to Step S67, and the "transceiver block 3 is not turned on [power supply]. Please carry out power supply ON manually. As it is indicated in 5000 of drawing 10 as ", it displays on CRT of a host computer.

[0065] At Step S66, the command for starting the power supply of a printer 4 through the transceiver blocks 2 and 3 from a host computer 1 is transmitted similarly, and it progresses to Step S68. Although it judges whether the power supply of a printer 4 started, and it progresses to Step S70 at Step S68 when it starts, when the status signal of power supply ON does not come on the contrary from a printer 4, it progresses to Step S69 and the "printer 4 is not turned on [power supply]. Please carry out power supply ON manually. It displays, as it is indicated as " on CRT of a host computer 7000 of drawing 11 . Furthermore, at Step S70, the "printer 4 and the transceiver blocks 2 and 3 were turned on [power supply]. It is data ready-for-receiving ability from this. It displays, as it is indicated as " on CRT of a host computer 9000 of drawing 11 , and it is ended.

[0066] In addition, in Steps S64, S67, and S69, as power supply ON of each information processor is carried out manually, it is an example of the obstacle evasion method when the obstacle of radio not arriving with the radio network system shown in drawing 12 occurs which on CRT of a host computer reported to the user. For example, it cannot be overemphasized that it is applicable also to the obstacle evasion method when the obstacle of the interchange FUYUSU cable having broken down with the cable network system occurs.

[0067] Drawing 8 and drawing 9 are flow charts which show this example, and show operation in case a host computer 1 turns off a printer 4 through the radio transmitter-receivers 2 and 3 in the system shown in drawing 12 .

[0068] Here, all the procedure of drawing 8 and drawing 9 is controlled by CPU101 in the host computer 1 shown in drawing 1 or drawing 5 , and the program is built in ROM102 in a host computer 1, or HD110 and FD111. Hereafter, operation is explained with reference to drawing 8 and drawing 9 .

[0069] First, although the transceiver block 2 judges whether it is a power supply ON state at Step S71 and it progresses to Step S75 in power supply ON, when the status signal of power supply ON does not come on the contrary from the transceiver block 2, it is judged as power supply OFF, and progresses to Step S72, and the command for starting the power supply of the transceiver block 2 from a host computer 1 is transmitted. Subsequently, it judges whether the transceiver block 2 was turned on [power [power supply], and although it progresses to Step S75 in power supply ON, when the status signal of power supply ON does not come by Step S73 on the contrary from the transceiver block 2, it is judged as power supply OFF, and progresses to Step S74, and the "transceiver block 2 is not turned on [power supply] at it. Please carry out power supply ON manually. As it is indicated in 3000 of drawing 10 as ", it displays on CRT of a host computer.

[0070] Although similarly the transceiver block 3 judges whether it is a power supply ON state at Step S75 and it progresses to Step S79 in power supply ON, when the status signal of power supply ON does not come on the contrary from the transceiver block 3, it is judged as power supply OFF, and progresses to Step S76, and the command for starting the power supply of the transceiver block 3 through the transceiver block 2 from a host computer 1 is transmitted. Subsequently, although it judges whether the transceiver block 3 became power supply ON and progresses to Step S79 at Step S77 in power supply ON, when the status signal of power supply ON does not come on the contrary from the transceiver block 3, it is judged as power supply OFF, and progresses to Step S78, and the "transceiver block 3 is not turned on [power supply]. Please carry out power supply ON manually. As it is indicated in 5000 of drawing 10 as ", it displays on CRT of a host computer.

[0071] At Step S79, through the transceiver blocks 2 and 3, a power supply off-command is transmitted to a printer 4, and it progresses to Step S80. Although a printer 4 is judged to be power supply OFF and

it progresses to Step S82 at it when it judges whether the printer 4 was turned off [power supply] and the status signal of power supply ON does not come by Step S80 on the contrary from a printer 4, when a printer 4 is power supply ON, it progresses to Step S81, and the "printer 4 is not turned off [power supply]. Please carry out power supply OFF manually. As it is indicated in 8000 of drawing 11 as ", it displays on CRT of a host computer.

[0072] At Step S82 shown in drawing 9 , a power supply off-command is transmitted to the transceiver block 3 through the transceiver block 2, and it progresses to Step S83, and judges whether the transceiver block 3 was turned off [power supply]. Although the transceiver block 3 judges it as power supply OFF and progresses to Step S85 when the status signal of power supply ON does not come on the contrary from the transceiver block 3 in Step S83, when the transceiver block 3 is power supply ON, it progresses to Step S84 and the "transceiver block 3 is not turned off [power supply]. Please carry out power supply OFF manually. As it is indicated in 6000 of drawing 10 as ", it displays on CRT of a host computer.

[0073] At Step S85, a power supply off-command is transmitted to the transceiver block 2, and it progresses to Step S86, and judges whether the transceiver block 2 was turned off [power supply]. In Step S86, although the transceiver block 2 judges it as power supply OFF and progresses to Step S88 when the status signal of power supply ON does not come on the contrary from the transceiver block 2, when the transceiver block 2 is power supply ON, it progresses to Step S87 and the "transceiver block 2 is not turned off [power supply]. Please carry out power supply OFF manually. As it is indicated in 4000 of drawing 10 as ", it displays on CRT of a host computer. Furthermore, at Step S88, the "printer 4 and the transceiver blocks 2 and 3 were turned off [power supply]. It displays, as it is indicated as " on CRT of a host computer 10000 of drawing 11 , and it is ended.

[0074] In addition, in Steps S74, S78, S81, S84, and S87, as power supply OFF of each information processor is carried out manually, it is an example of the obstacle evasion method when the obstacle of radio not arriving with the radio network system shown in drawing 12 occurs which on CRT of a host computer reported to the user. For example, it cannot be overemphasized that it is applicable also to the obstacle evasion method when the obstacle of the interface cable having broken down with the cable network system occurs.

[0075] In addition, although the above-mentioned example described the case where mind a transceiver block, and a host computer package-turned on, / turned off the power supply of a transceiver block and a printer, information processors, such as various kinds of servers, are minded, and the main information processors, such as a host computer, may package-turn on, / may be made to turn off the power supply of information processors, such as various peripheral-device information processors, such as a printer, a copying machine, a scanner, FAX, and a telephone, and various servers.

[0076] Furthermore, the various terminals connected on a workstation or LAN or a small computer like a hand held computer is sufficient as a host computer.

[0077]

[Effect of the Invention] According to this invention, the power control state of other information processors of the plurality described above connected to the main information processor by the cable or radio in sequence is come to hand and recognized like. By controlling the power supply of the information processor considered as a request based on the power control directions information on the information processor considered as a request with the recognized recognition result The power control of the main information processors, such as a host computer, and two or more of other information processors currently installed in the place distant through a cable or radio in sequence The effect that remote control of the power supply of the information processor automatically considered as a request on the main information processor can be carried out is done so, without being conscious of other information processors which intervene between the information processors and the main information processors which carry out package management with the main information processor, and which are considered as the request whose user performs power control.

[0078] Moreover, the outstanding effect that priority is given to the large information processor of power consumption among the main information processors, such as a host computer, and two or more

of other information processors currently installed in the place distant through a cable or radio in sequence, and remote control of the power supply can be carried out is done so.

[0079] Moreover, when remote control of the power supply of the main information processors, such as a host computer, and two or more of other information processors currently installed in the place distant through a cable or radio in sequence cannot be carried out, specific information of with which information processor the error has occurred is carried out outside, and the effect that the error recovery method can be reported further is done so.

[Translation done.]